Amendments to the Specification:

Please cancel the current title of the application and replace it with the following new title:

GENERATING A STACK OF CURRENT SLICE IMAGES WHICH ARE ALIGNED WITH AN EARLIER GENERATED STACK OF SLICE IMAGES OF THE SAME REGION

Please amend the paragraph which starts on page 1, line 23, and continues to page 2, line 11, to read as follows:

When diagnostic slice images are made as a repetitive process, it is crucial that the position and orientation in three dimensions, relative to the part of the patient's body that is being examined, of the slice images made at different times or under different modalities should agree as closely as possible so that, for example, the advance of the condition can be accurately observed. ~~For this purpose, it is usual for reference slice images of the part of the body to be made before the actual diagnostic slice image is made. By calculating a geometrical transformation, it is possible for a fresh, current reference slice image that is made to be brought into congruence with earlier reference slice images. The method that is required for this purpose is a method of optimization in which the sets of image data for the reference slice images made at different times are brought into agreement. From the geometrical transformation that is calculated, transformation parameters are obtained that are taken as a basis for calculating current imaging parameters. For diagnostic slice images, the current imaging parameters are then used to enable the image planes of the diagnostic slice images to be set repeatably (see~~ Proposals to address this problem include, for example, J.M. Fitzpatrick, D.L. Hill and C.R. Maurer Jr.: "Chapter 8: Image Registration" in M. Sonka and J.M. Fitzpatrick (eds.) "Handbook of Medical Imaging, Volume 2: Medical Image Processing and Analysis", pages 447-513, SPIE Press, Bellingham WA, 2000; J.B.Maintz and M.A. Viergever: "A Survey of Medical Image Registration", Medical Image Analysis, Vol. 2(1), pages 1-36, 1998).